

TWO NEW SPECIES OF *PELECORHYNCHUS* MACQUART (DIPTERA:  
PELECORHYNCHIDAE), WITH THE FIRST RECORD OF THE  
FAMILY FROM WESTERN AUSTRALIA

By G. Daniels  
Associate, Australian Museum, Sydney

Abstract

*Pelecorhynchus mackerrasi* and *P. tigris* are described as new, the former being the first member of the family Pelecorhynchidae to be recorded from Western Australia.

*Pelecorhynchus mackerrasi* sp. n.

*Holotype* ♂, WESTERN AUSTRALIA: Warren River, 6 miles SE of Pemberton, 17 Jan. 1971, G.A. Holloway and H. Hughes; in the Australian Museum, Sydney.

An ornate species; thorax with complete pale dorsocentral and lateral lines which are confluent posteriorly; abdomen with complete pale and partly interrupted black transverse bands; wings with conspicuous rows of more or less confluent spots.

**MALE.** *Head.* Antennae brown with black basal hairs. Eyes brownish, upper facets about three times as large as lower facets, separated by a fairly well defined line. Face with creamy white tomentum; hairs black; parafacials with silver-grey tomentum and yellow hairs admixed with a few black hairs; a group of black hairs on lower margin. Ruff yellow haired.

*Thorax.* Mesoscutum mainly brownish with conspicuous pale grey markings; a narrow indistinct pale brown median line along length of mesoscutum, becoming pale grey posteriorly; dorsocentral lines pale grey, fairly broad, slightly narrowed on dorsal margin posteriorly to mesonotal suture, becoming confluent posteriorly; sutural line grey, narrow, sharply delimited posteriorly, less so anteriorly; lateral line grey-white extending to posterior margin; median, dorsocentral and lateral lines confluent posteriorly, so that posterior fourth of mesoscutum is entirely grey; postsutural sublateral area darker brown than other mesoscutal areas; hairs black, white on posterior fourth; pre- and postsutural hairs laterally copper coloured, admixed with a few black hairs; postalar hairs white, less conspicuous than in the similar *P. personatus* (Walker). Anterolateral scutellar margin pale grey, remainder of scutellum deep brown; infra-apical tuft of hairs reddish. Postmesopleural prominence pale grey anteriorly, darkening to brownish posteriorly; hairs white anteriorly, changing to copper coloured admixed with a few black elements; postmesopleural tuft white. Squamal tuft white to creamy.

*Legs.* Uniformly dark brown; apical tarsal segment partly black dorsally.

*Wings.* Greyish, sub-hyaline, with a series of conspicuous, oblique, irregular, pale brown markings. Cells C and Sc indistinctly brownish. Remainder of patterning similar to that of *personatus*. Vein R<sub>4</sub> arising distinctly further basally than in *personatus* or *nigripennis* Ricardo; vein 2A almost straight.

*Abdomen.* Anterior half of each tergite pale grey, posterior half deep brown.

except first tergite which is pale brown. Tergites 4 and 5 narrowly deep brown on apical margin, the grey transverse bands infuscated pale brown anteriorly; apical transverse lines on tergites 1-3 interrupted medially for about two thirds their depth by a pale grey indentation which is about twice as wide as deep; tergites 4 and 5 with a very shallow indentation. Abdominal hairs copper coloured, the dark apical band on tergite 2 with black hairs. Lateral tergal tufts poorly developed, represented by a few white hairs basally on each tergite.

*Length.* 13 mm.

*Habitat.* Taken in dry sclerophyll forest in the vicinity of a swamp.

FEMALE. Unknown.

This species is named in honour of Dr I. M. Mackerras.

The discovery of a single distinctive pelecorynchid specimen from Western Australia was surprising, as the distribution of *Pelecorynchus* in Australia was thought to be restricted to the highlands of Tasmania and the eastern highlands of Victoria and New South Wales, with small extensions to lower coastal areas.

*P. mackerrasi* belongs to the *personatus* species group, as defined by Mackerras and Fuller (1942). The species shows resemblances to both *personatus* and *nigripennis*, the brownish broken wing spots allying it to *personatus*, whilst the relatively wide transverse abdominal bands ally it to *nigripennis*. From both these species *mackerrasi* can be separated by the complete pale grey lateral mesocutal band, partly grey scutellum and the absence of distinct red abdominal and thoracic hairs and hair tufts. The abdomen has the lateral hair tufts more or less absent. The overall colouration tends towards a distinct brown and grey, rather than black and grey. The conspicuous enlargement of the upper eye facets is unique amongst species of the *personatus* group, and is only known to occur in *hunnulatus* Mackerras and Mackerras.

#### *Pelecorynchus tigris* sp. n.

*Holotype* ♂, VICTORIA: Gordon, 13 Nov 1969, E. F. Riek. *Paratypes*: 2♂, same data; in Australian National Insect Collection, Canberra.

A medium sized, relatively narrow bodied, ornate species. Antennae mostly orange. Thorax black, with an orange median longitudinal line. Wings orange, black spotted. Legs black with yellow tarsi. Abdomen of male black.

MALE. *Head.* Antennae orange, segments 1 and 2 black. Eyes separated by the length of the frons. Frons and face shining black, with some whitish tomentum and black hairs; parafacials whitish, with white hairs. Ruff creamy.

*Thorax.* Mesoscutum with sublateral areas black, black haired; median area dull orange, golden haired; dorsocentral lines continuous, pale yellow, bordered laterally by a narrow pale yellow zone. A pair of narrow brownish lines begin anteriorly on inner margins of yellow dorsocentral lines, converge slightly to join on posterior eighth of mesoscutum, and widen abruptly to touch inner margins of dorsocentral lines at scutellar suture. Scutellum brownish medially, yellowish orange laterally; golden haired except for lateral distal margin which

is white haired and medial area which is black haired. Marginal hairs of meso-scutum black, mixed with silvery white. Supra-alar and post-alar tufts white. Pleura black, with black and grey hairs on post-mesopleural prominence; silvery white post-mesopleural and squamal tufts.

*Legs.* Black with yellow tarsi.

*Wings.* Orange anteriorly, more greyish yellow posteriorly, with a narrow blackish zone along posterior border. Membrane with two large dark brown patches; the first occupies the entire radial field from the apex of  $R_1$  to a point slightly distal to the bifurcation of  $R_{4+5}$ ; the second extends along  $R_{4+5}$  to its bifurcation with  $R_3$ , and widens posteriorly to include the discal cell and m-cu cross-vein.

*Abdomen.* Shining black dorsally and ventrally, with a pair of indefinite paler areas and zones of white hairs on the first visible tergite; tergal hairs black, white laterally, except towards the apices, where they are more or less replaced by black.

*Length.* 11.5 - 11.9 mm.

FEMALE. Unknown.

*P. tigris* is a very distinct species which can be confused only with *fulvus*, from which it is distinguished by the orange antennae and darker wings.

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#### Reference

- Mackerras, I. M. and Fuller, M. E., 1942. The genus *Pelecorhynchus* (Diptera, Tabanoidea). *Proc. Linn. Soc. N.S.W.* 67(1-2): 9-76, pl. 1, 78 text-figs.

### RECENT SPECIMENS OF *VESPULA* (*PARAVESPULA*) *GERMANICA* (FABRICIUS) (HYMENOPTERA: VESPIDAE) TAKEN IN SYDNEY

By C. N. Smithers and G. A. Holloway  
The Australian Museum, College Street, Sydney

Edwards (1976) has discussed the world distribution pattern of the German Wasp [as *Paravespula germanica* (Fab.)]. Originally of Holarctic distribution it is now known also from New Zealand (Thomson, 1922; Thomas, 1960), Tasmania (Anonymous, 1962) and Western Australia (Anonymous, 1977).

The only published record of the species in New South Wales appears to be that of Chadwick and Nikitin (1969) who list one specimen (a queen, now in the collection of the Biological and Chemical Research Institute, Rydalmere)